AMENDMENT TO THE CLAIMS

1. (Currently amended) A slider, comprising:

a substrate, having a first coefficient of expansion responsive to a stimulus;

a transducer disposed on the substrate, the transducer having a second coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion; and

a hydrodynamic surface comprising at least a portion of a bearing surface and a responsive aeroelastic deposit having a third coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion.

2. (Currently amended) The slider of claim ~~1~~ 39, wherein a height of the responsive aeroelastic deposit above a portion of the hydrodynamic surface increases as the responsive aeroelastic deposit expands responsively to the stimulus.

3. (Currently amended) The slider of claim ~~1~~ 39, wherein the responsive aeroelastic deposit shears as it expands responsively to the stimulus.

4. (Currently amended) The slider of claim ~~1~~ 39, wherein the responsive aeroelastic deposit bends as it expands responsively to the stimulus.

5. (Currently amended) The slider of claim ~~1~~ 40, wherein the stimulus~~, responsively to which the third coefficient of expansion is greater than the first coefficient of expansion,~~ comprises heat.

6. (Currently amended) The slider of claim ~~1~~ 40, wherein the stimulus~~, responsively to which the third coefficient of expansion is greater than the first coefficient of expansion,~~ comprises an electric voltage or an electric current.

7. (Currently amended) The slider of claim ~~1~~ 40, wherein the stimulus~~, responsively to which the third coefficient of expansion is greater than the first coefficient of expansion,~~ comprises a magnetic field.

8. (Currently amended) The slider of claim ~~1~~ 40, wherein the stimulus~~, responsively to which the third coefficient of expansion is greater than the first coefficient of expansion,~~ comprises electromagnetic radiation.

9. (Currently amended) The slider of claim ~~1~~ 40, wherein the stimulus~~, responsively to which the third coefficient of expansion is greater than the first coefficient of expansion,~~ comprises humidity.

10. (Currently amended) The slider of claim 1, wherein the responsive aeroelastic deposit comprises at least a portion of a convergent channel.

11. (Currently amended) The slider of claim 1, wherein the responsive aeroelastic deposit comprises at least a portion of a channel wall.

12. (Currently amended) The slider of claim ~~1~~ 39, wherein the responsive aeroelastic deposit comprises at least a portion of an above-ambient pressure formation.

13. (Currently amended) The slider of claim 1, wherein the responsive aeroelastic deposit comprises at least a portion of a cavity dam.

14. (Currently amended) The slider of claim 1, wherein the responsive aeroelastic deposit comprises at least a portion of a cavity wall.

15. (Currently amended) The slider of claim ~~1~~ 39, wherein the responsive aeroelastic deposit comprises at least a portion of a sub-ambient pressure formation.

16. (Currently amended) The slider of claim ~~1~~ 39, wherein the responsive aeroelastic deposit is comprised on at least a portion of a cavity surface of the slider.

17. (Currently amended) The slider of claim ~~1~~ 39, wherein the responsive aeroelastic deposit is comprised on at least a portion of a bearing surface of the slider.

18. (Currently amended) The slider of claim ~~1~~ 39, wherein the responsive aeroelastic deposit is comprised on at least a portion of a side surface of the slider.

19. (Currently amended) The slider of claim 1, wherein the responsive aeroelastic deposit is comprised on at least a portion of a leading surface of the slider.

20. (Currently amended) The slider of claim ~~1~~ 39, wherein the responsive aeroelastic deposit is comprised on at least a portion of a trailing surface of the slider.

21. (Currently amended) The slider of claim ~~1~~ 40, wherein the third coefficient of expansion ~~responsive to the stimulus~~ is less than the second coefficient of expansion.

22. (Currently amended) The slider of claim ~~21~~ 1, wherein at least a portion of the responsive aeroelastic deposit is disposed adjacent to the transducer to form a convergent channel, comprising a cavity surface comprising the responsive aeroelastic deposit, and a channel wall comprising the transducer.

23. (Currently amended) The slider of claim 1, wherein the responsive aeroelastic deposit comprises at least a portion of a debris shield.

24. (Currently amended) The slider of claim ~~1~~ 40, wherein the responsive aeroelastic deposit comprises at least a portion of a landing pad.

25. (Currently amended) The slider of claim ~~1~~ 40, wherein at least a portion of the responsive aeroelastic deposit has a shape and position on the hydrodynamic surface

such that an expansion of the responsive aeroelastic deposit~~, responsively to the stimulus,~~ causes a roll of the slider to increase.

26. (Currently amended) The slider of claim ~~1~~ 40, wherein at least a portion of the responsive aeroelastic deposit has a shape and position on the hydrodynamic surface such that expansion of the responsive aeroelastic deposit~~, responsively to the stimulus,~~ causes a pitch of the slider to increase.

27. (Currently amended) The slider of claim ~~1~~ 40, wherein at least a portion of the responsive aeroelastic deposit has a shape and position on the hydrodynamic surface such that expansion of the responsive aeroelastic deposit~~, responsively to the stimulus,~~ causes a lift of the slider to increase.

28. (Currently amended) The slider of claim 27,

wherein the slider faces an opposing surface defining a fly height of the slider measured from the opposing surface to the transducer; and

wherein at least a portion of the responsive aeroelastic deposit has a shape and position on the hydrodynamic surface such that expansion of the deposit toward the opposing surface~~, responsively to the stimulus,~~ causes the fly height of the slider to increase.

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

38. (Canceled)

39. (New) A slider, comprising:

a substrate, having a first coefficient of expansion responsive to a stimulus;

a transducer disposed on the substrate, the transducer having a second coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion; and

a hydrodynamic surface comprising a responsive aeroelastic deposit having a third coefficient of expansion responsive to the stimulus that is greater than the second coefficient of expansion.

40. (New) A slider, comprising:

a substrate, having a first coefficient of expansion responsive to a stimulus;

a transducer disposed on the substrate, the transducer having a second coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion; and

a hydrodynamic surface comprising a responsive aeroelastic deposit having a third coefficient of expansion responsive to the stimulus that is greater than the first coefficient of expansion, wherein the responsive aeroelastic deposit comprises at least a portion of a convergent channel.